

Crystal ball questions on Isomers

All of the following questions have not (as yet!) appeared in the NCEA Level 2 Exams

1) The compound but-2-ene-1,4-dioic acid forms two geometrical isomers, draw and name them.

2) Which of the following are isomers of pentane?

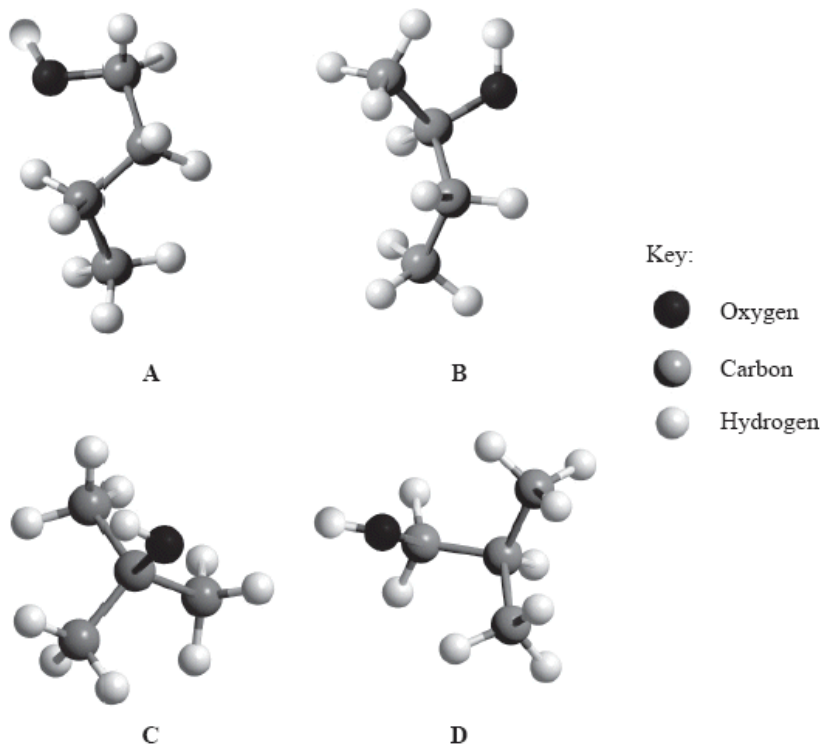
2-methylpentane and/or methylbutane and/or dimethylpropane

3) Draw all the isomers for a compound with the molecular formula $C_2H_2Cl_2$?

4) Define a structural isomer

5) Draw and name all eight isomers of pentanol

6) Shown below are four structural isomers of alcohols with molecular formula $C_4H_{10}O$. State the name of each of the isomers A, B, C and D.



7) Draw a pair of cis-trans isomers that have a molecular formula of C_6H_{12}

8) i) Draw and name the two geometrical isomers of 1,3-dichlorocyclobutane.

ii) (*Level 3 question*) Identify the isomer with the higher boiling point and explain your reasoning.